



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

8th. As a concluding argument in favor of the theory that the dark parts are land and the brighter areas water, I take an observed terrestrial phenomenon.

About twenty-five miles to the northwest of Mt. Hamilton is the lower end of San Francisco bay. In fair weather the whole country from Mt. Hamilton to San Francisco, a distance of fifty miles, is plainly visible. Now at all hours of the day *the surface of San Francisco Bay* (as seen from the top of Mt. Hamilton) *is much brighter than the neighboring valley and mountains at the same distance*, although the line of sight makes an angle of more than 87° with the normal to the surface of the bay and the observer's position varies all the way from being nearly in a direct line between the bay and the sun to the position in which the sun is nearly in the direction of the bay.

The internal reflections in an atmosphere not perfectly transparent would tend to render an underlying water surface much brighter than a surface of land in the same position.

As stated above these views may be modified somewhat by the observations still to be made during the present year.

LICK OBSERVATORY, Sept. 3, 1892.

NOTICE TO MEMBERS.

The edition of Numbers 1 and 2 of our *Publications* is exhausted. We have, however, quite a number of copies (some 200) of Nos. 3, 4 and 5 on hand. Volume I of the *Publications* comprises Nos. 1, 2, 3, 4, 5. If a sufficient number of persons signify their desire to purchase Volume I complete (price \$2), the lacking numbers of the *Publications* will be reprinted and the volume distributed. Such orders should be addressed to

The Committee on Publication A. S. P.,
Mount Hamilton, California.

OCCULTATION OF JUPITER AND HIS SATELLITES, SEPT. 8, 1892.

The observations recorded below were made with the 36-inch refractor using a power of 700 diameters. The seeing at the ingress of satellite I was very good, but the other observations were made under less favorable atmospheric conditions. The immersions occurred just before sunrise. The emersions were

not looked for as the phenomena took place in broad daylight with poor seeing.

Object.	Pacific Standard Times of Ingress.			
	1st Limb.		2d Limb.	
Satellite III. Sept. 8.	17 ^h	17 ^m 21 ^s .4	17 ^h	17 ^m 24 ^s .5
Satellite IV.	17	29 38.2	Blurred	
Satellite I.	17	30 56.7	17	30 58.7
<i>Jupiter</i>	17	34 44.1	17	36 22.5
Satellite II.	17	45 4.2	17	45 6.7

As the bright disk of the moon gradually passed over the pale surface of *Jupiter* the spherical form of the latter was very conspicuously brought out. The belts appeared almost black by contrast. No distortions were observed.

Satellite I is elongated in the direction of *Jupiter's* equator.

Satellite III has a bright polar cap near the north point of its disk much resembling the polar cap as seen on *Mars* during June and July.

J. M. S.

DISCOVERY OF A FIFTH SATELLITE OF *JUPITER* BY PROFESSOR BARNARD.

The following telegram was sent on September 11.

(dated) LICK OBSERVATORY, Sept. 11, 1892.

The Lick Observatory desires to announce that Professor BARNARD has added a fifth satellite to the four satellites of *Jupiter* discovered by GALILEO on January 7, 1610. It was discovered by BARNARD on September 9th. Its period is about 12^h 36^m.^{*} Its distance from the planet's center is about 112,400 miles. It was observed by him at east elongation September 10, 20^h 53^m 21^s Greenwich mean time. Its magnitude is the thirteenth.

^{*} Later observations give the period as about 11 hours 50 minutes.